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EXAMINER	
HUYNH, PHUONG N	

ART UNIT	PAPER NUMBER
1644	

DATE MAILED: 06/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/753,350	COUTTS ET AL.	
	Examiner	Art Unit	
	Phuong Huynh	1644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *Three* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *22-51* is/are pending in the application.

4a) Of the above claim(s) *28, 36, 39-41, 44, 45 and 47* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *22-27,29-35,37,38,42,43,46 and 48-51* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 August 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *2/12/04; 12/10/02;*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 22-51 are pending.

2. Applicant's election with traverse of Group 14, Claims 22-38, 42-43, and 46 (now claims 22-27, 29-35, 37-38, 42-43, 46, and 48-51) drawn to a composition comprising a plurality of a conjugate wherein said conjugate comprises at least two analog molecules of the immunogen conjugated to a specific chemically defined valency platform molecule, wherein the analog molecule is a specific peptide, wherein the external immunogen is a specific allergen, filed 3/26/04, is acknowledged. The traversal is on the grounds that (1) should any of the linking claims (claims 22, 48, 49 and 50) or the generic claims be found allowable, the MPEP requires withdrawal of the restriction requirement and full examination of the remaining linked claims for their patentability. (2) The groupings do not conform to the patent statute under U.S.C. Sec. 121. The examiner has divided Applicants' claims into fragments. None of the criteria for grouping claims that the examiner applied is found in one claim. None of the claims 48 and 49, which depend from claim 29, contains a limitation on what the analog molecules may be or what the external immunogen may be. The restriction requirement is unreasonable. Upon reconsideration, the method of inducing specific B cell anergy and treating using the claimed composition (Group 50), and the method of making the claimed composition (Group 84) wherein the analog molecule is a peptide (Group 7) have been rejoined with the elected Group 14 that read on peptide analog SEQ ID NO: 7, the specific immunogen is melittin and the analog and the immunogen is the same chemical class. Therefore, the requirement of Group 14 (now 22-27, 29-35, 37-38, 42-43, 46, and 48-51) and Groups 1-13, 15-49, 51-83 and 108, is still deemed proper and is therefore made FINAL.

3. Claims 28, 36, 39-41, 44, 45 and 47 are withdrawn from further consideration by the examiner, 37 C.F.R. 1.142(b) as being drawn to non-elected inventions.

4. Claims 22-27, 29-35, 37-38, 42-43, 46, and 48-51are being acted upon in this Office Action.

5. Claims 26 and 38 are objected to for reciting non-elected embodiment.

6. Claim 25 is objected to because "a said conjugate" where "a" should have been deleted.

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 22-27, 29-35, 37-38, 42-43, 46, and 48-51 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling only for (1) A composition for inducing specific B cell anergy to a mellitin immunogen comprising a plurality of a conjugate, wherein said conjugate comprises: at least two mellitin antibody binding peptide analog selected from the group consisting of SEQ ID NO: 7 that (a) specifically binds antibodies produced by B cells specific for mellitin and (b) lacks T cell epitope(s) of the immunogen, conjugated to a chemically defined valency platform molecule comprises branching groups, a specific number of attachment sites whereby the valency of said platform molecule is defined and wherein the molecule weight of the valency platform molecules is substantially homogenous, and (2) a method making and using said composition, **does not** reasonably provide enablement for (1) *any* composition for inducing specific B cell anergy to *any* T cell dependent immunogen implicated in *any* antibody-mediated pathology comprising a plurality of all conjugate, wherein said conjugate comprises: at least *any* two "analog molecules" of all immunogen, *any* analog molecule is *all* carbohydrates analogs, *all* lipids analogs, *all* lipopolysaccharide analogs, *all* polypeptide analogs, *all* peptide analogs, *all* protein analogs, *all* glycoproteins analogs, and *all* lipoproteins analogs conjugated to a chemically defined valency platform molecule, wherein said analog molecules bind specifically to *all* surface antibody on B cells to which the T cell-dependent immunogen binds specifically and wherein the analog molecules lack T cell epitope; wherein the chemically defined valency platform molecule comprises all branching groups, and wherein the valency platform molecule contains a specific number of attachment sites whereby the valency of said platform molecule is defined and wherein the molecular weight of the valency platform molecule is "substantially homogeneous" and wherein the valency platform molecules have attachment sites at the same location, (2) the said composition wherein the branching groups are derived from diamino acid, triamine and amino diacid, (3) the said composition wherein the analog molecules are the same, (4) the said composition comprises any conjugates, wherein said conjugate comprises any four "analog molecules", (5) the said composition wherein the valency platform molecules are substantially non-immunogenic, (6) the said composition comprises a pharmaceutically acceptable carrier (claims 29-30), (7) the said composition wherein the

conjugate comprises polyethylene glycol having the formula-CH2(CH2OCH2)rCH2-, wherein r =0 to 300, the said composition wherein the valency platform molecule comprises polyethylene glycol having the formula-CH2(CH2OCH2)rCH2-, wherein r =0 to 300, or triethylene glycol, (8) the composition for inducing specific B cell anergy to any T cell dependent immunogen implicated in any antibody-mediated pathology comprising a plurality of all conjugate, wherein said conjugate comprises: at least any two "analog molecules of the immunogen", any analog molecule is any carbohydrates analogs, any lipids analogs, any lipopolysaccharide analogs, any polypeptide analogs, any peptide analogs, any protein analogs, any glycoproteins analogs, and lipoproteins analogs, any analog molecules are the same chemical class, or any polypeptides conjugated to any chemically defined valency platform molecule, wherein said analog molecules bind specifically to *all* surface antibody on B cells to which the T cell-dependent immunogen binds specifically and wherein the analog molecules lack T cell epitope; wherein the chemically defined valency platform molecule comprises all branching groups, and wherein the valency platform molecule contains a specific number of attachment sites whereby the valency of said platform molecule is defined and wherein the molecular weight of the valency platform molecule is "substantially homogeneous" and wherein the valency platform molecules have attachment sites at the same location wherein the immunogen is any external immunogen such as any allergen for inducing specific B cell anergy to all T cell-dependent immunogen or treating all antibody-mediated pathology, (9) a method of inducing any or all B cell specific anergy to any or all T cell-dependent immunogen by administering a therapeutically effective amount of any composition mentioned above, (10) a method of treating any or all antibody mediated pathology as set forth in claim 49, and (11) a method of making any composition above (claims 50-51). The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in **scope** with these claims.

Factors to be considered in determining whether undue experimentation is required to practice the claimed invention are summarized *In re Wands* (858 F2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988)). The factors most relevant to this rejection are the scope of the claim, the amount of direction or guidance provided, the lack of sufficient working examples, the unpredictability in the art and the amount of experimentation required to enable one of skill in the art to practice the claimed invention. The specification disclosure is insufficient to enable one skilled in the art to practice the invention as broadly claimed without an undue amount of experimentation.

The specification discloses only non-polymeric valency platform molecule having the formulae defined on pages 4, and 7. The specification discloses only melittin peptide analogs consisting of the amino acid sequence selected from the group of SEQ ID NOS: 2-10 (page 116-117). The said melittin peptide analogs are conjugated to the chemically defined valency platform molecule polyethylene glycol via thioether bond. The specification on page 26 discloses analogs to immunogen such as allergens, α-sperm associated with male infertility, the rheumatic fever carbohydrate complex, and RBC Rh/D antigen associated with hemolytic disease of the newborn, biological drugs, therapeutic proteins, peptides and antibodies, autoimmunogens may be identified by screening candidate molecule to determine whether they (a) bind specifically to serum antibodies to the immunogen and (b) lack T cell epitope.

The specification does not teach how to make any composition mentioned above because there is insufficient guidance as to structure of the "analog molecules" without the specific amino acid sequences. The term "analog molecules" could be peptide, protein, nucleic acid, RNA or DNA. Without the amino acid or the nucleic acid sequence, the analog molecule has no structure, much less function. Given the indefinite number of analog molecules conjugated to a chemically defined valency platform molecule in the claimed composition, there is insufficient guidance as to which to amino acids within which immunogen such as which allergens, peptides, proteins, glycoproteins, carbohydrates, lipids glycoproteins, and lipoproteins to be modified by substitution, deletion, or mutation and whether the resulting analog molecule still binds to surface of antibody on B cells of which antibody mediated pathology, in turn, would be useful for inducing specific B cell anergy to all T cell dependent immunogen implicated to all antibody mediated pathology. Given the indefinite number of antibody-mediated pathology, there are insufficient in vivo working examples demonstrating that the claimed compositions can treat all antibody-mediated pathology such as all autoimmune diseases. Perhaps it is true that one or more of the claimed compositions comprising the specific conjugate can be used to induce tolerance of melittin. But this hardly tantamount to successful treatment of all antibody mediated pathology. Perhaps a majority of diseases involve, to some extent or other, the production of antibodies, even if the is very peripheral to the etiology or manifestations of the disease in question. For example, even a mild allergy to pollen is "antibody mediated pathology".

Ngo *et al* teach that the amino acid positions within the polypeptide/protein that can tolerate change such as conservative substitution or no substitution, addition or deletion which are

critical to maintain the protein's structure/function will require guidance (see Ngo et al., 1994, The Protein Folding Problem and Tertiary Structure Prediction, pp. 492-495).

Abaza *et al* teach that even a single amino acid substitution outside the antigenic site can exert drastic effects on the reactivity of a protein with monoclonal antibody against the site (See abstract, in particular).

Since the specification fails to provide guidance regarding which amino acids within the particular protein, polypeptide, peptide, lipid, lipoprotein of the immunogen after modification still binds to surface antibody on B cell that lacks T cell epitope and associated with which antibody mediated pathology, it follows that any composition comprising the undisclosed analog molecules conjugated to a chemically defined valency platform molecule is not enabled. The specification as filed merely invite one skill in the art for further experimentation to arrive at the claimed composition. Until the analog molecules of immunogen that bind specifically to antibody on B cell associated with which particular antibody mediated pathology have been identified, the method of treating all antibody-mediated pathology is not enabled. Likewise, the method of inducing B cell anergy to all T cell-dependent immunogen is not enabled. For these reasons, it would require undue experimentation of one skilled in the art to practice the claimed invention. See page 1338, footnote 7 of Ex parte Aggarwal, 23 USPQ2d 1334 (PTO Bd. Pat App. & Inter. 1992).

In re wands, 858 F.2d at 737, 8 USPQ2d at 1404 (Fed. Cir. 1988), the decision of the court indicates that the more unpredictable the area is, the more specific enablement is necessary. In view of the quantity of experimentation necessary, the limited working examples, the unpredictability of the art, the lack of sufficient guidance in the specification and the breadth of the claims, it would take an undue amount of experimentation for one skilled in the art to practice the claimed invention.

9. Claims 22-27, 29-35, 37-38, 42-43, 46, and 48-51 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention.

The specification does not reasonably provide a **written description** of all (1) "analog molecules", (2) *all* analog molecule is any external immunogen such as *any* allergens, *any* peptides, *any* proteins, *any* carbohydrates, *any* lipids, *any* lipopolysaccharides, *any* polypeptides,

any glycoproteins and *any* lipoproteins conjugated to all chemically defined "valency platform molecule" comprising all branching groups, containing any specific number of attachment sites and substantially homogenous in the claimed composition.

The specification discloses only non-polymeric valency platform molecule having the formulae defined on pages 4, and 7. The specification discloses only melittin peptide analogs consisting of the amino acid sequence selected from the group of SEQ ID NOS: 2-10 (page 116-117). The said melittin peptide analogs are conjugated to the chemically defined valency platform molecule polyethylene glycol via thioether bond. The specification on page 26 discloses analogs to immunogen such as allergens, α-sperm associated with male infertility, the rheumatoid fever carbohydrate complex, and RBC Rh/D antigen associated with hemolytic disease of the newborn, biological drugs, therapeutic proteins, peptides and antibodies, autoimmunogens may be identified by screening candidate molecule to determine whether they (a) bind specifically to serum antibodies to the immunogen and (b) lack T cell epitope.

With the exception of the specific melittin peptide analog molecule from bee venom allergen conjugated the specific valency platform molecule having the specific formula in the claimed composition, there is inadequate written description about the structure associated with function of the other "analog molecules" without the amino acid sequence, much less which analog molecules binds to the surface of B cell and lack T cell epitopes. With the exception of the specific bee venom allergen peptide analog of SEQ ID NOS: 7 mentioned above in the claimed composition, there is insufficient written description about the structure associated with functions of all analog molecules from other allergens, peptides, proteins, carbohydrates, lipids, lipopolysaccharides, polypeptides, glycoproteins and lipoproteins. Given the lack of a written description of *any* additional representative species of "analog molecules" conjugated to chemically defined valency platform molecule in the claimed composition, one of skill in the art would reasonably conclude that the disclosure fails to provide a representative number of species to describe the genus. Thus, Applicant was not in possession of the claimed genus. *See University of California v. Eli Lilly and Co. 43 USPQ2d 1398; University of Rochester v. G.D. Searle & Co., 69 USPQ2d 1886 (CA FC2004).*

Applicant is directed to the Final Guidelines for the Examination of Patent Applications Under the 35 U.S.C. 112, ¶ 1 "Written Description" Requirement, Federal Register, Vol. 66, No. 4, pages 1099-1111, Friday January 5, 2001.

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

11. Claims 22-27, 29-35, 37-38, 42-43 and 46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The "a **plurality** of **a** conjugate" in claim 22 is ambiguous and indefinite because plurality means more than one conjugates. As written, one of ordinary skill in the art cannot appraise the metes and bound of the claimed invention.

The "valency platform molecules" in claim 22, lines 11 and 13 in the plural is inconsistent with the singular "a chemically defined valency platform molecule" in claim 22, line 5.

The "analog molecule" in claim 26 is in singular. The "at least two analog molecules" in base claim 22 is in plural.

The "valency platform molecules" in claim 27 in the plural is consistent with "the singular "a chemically defined valency platform molecule" in claim 22, line 5.

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office Action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

13. Claims 22-27, 29-35, 37-38, 42-43 and 46 are rejected under 35 U.S.C. 102(e) as being anticipated by US Pat No 6,060,056 (filed Feb 1991; PTO 892).

The '056 patent teaches a composition for inducing specific B cell anergy to a T cell dependent immunogen such as allergen implicated in an antibody-mediated pathology comprising a plurality of conjugate wherein the conjugate comprises at least two analog of immunogen such as melittins peptide that lack T cell epitopes and chemically conjugated to a valency platform molecule such as homogenous polymer polyethylene glycol comprises branching group that contains a specific number of attachment sites (See entire document, Figure 11 of '056 patent,

claims 1-15, in particular). The reference composition wherein the branching group is diamino acid, i.e, ethylenediamin (See Figure 11, col. 6, line 15, in particular). The reference composition wherein the analog molecules are the same class (See claim 6 of '056 patent, in particular). The reference composition wherein the conjugates comprises 3-5 analog molecules (See col. 29, in particular). The term "comprising" is open-ended. It expands the claimed conjugates of four analog molecules to include the reference conjugates that comprise 5 analog molecules. The reference composition comprises a pharmaceutically acceptable carrier for injection (See claim 15 of '056 patent, col. 6, lines 34, in particular). The reference valency platform molecules are substantially non-immunogenic (See abstract, in particular) and comprises polyethylene glycol having the formula CH2(CH2OCH2)rCH2 wherein r is 74 which is within r =0 to 300 (See col. 5, lines 51-67, Figure 11, in particular). The reference immunogen melittin peptides are allergen and are also external immunogen. Claim 35 is included in this rejection because the term "comprises" is open-ended. It expands the triethylene glycol to include the reference's multiple units of ethylene glycol. Thus, the reference teachings anticipate the claimed invention.

14. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

15. Claims 22-27, 29-35, 37-38, 42-43, 46, and 48-51 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 13, 6, 7, 9, 10, 12, 13, 14, 15, 16, 17 and 18 of U.S. Patent No. 6,060,056. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following reasons.

Claim 15 of the '056 patent recites a pharmaceutical composition comprising a therapeutic effective amount of the conjugate for inducing specific B cell anergy to a T cell dependent immunogen implicated in an antibody-mediated pathology comprising a non-immunogenic valency platform molecule and at least two analog molecules of the immunogen wherein (a) the analog molecules bind specifically to surface antibody on B cells to which the T cell-dependent immunogen binds specifically and (b the conjugate lacks T cell epitopes capable of activity T cells in said individual, and further wherein the analog molecules are selected from the group consisting of peptides, polypeptides, proteins, glycoproteins, lipoproteins, carbohydrates, lipids, and lipopolysaccharides (genus).

Although the pending claim 22 of instant application recites a composition for inducing specific B cell anergy to a T cell dependent immunogen implicated in an antibody-mediated pathology comprising a plurality of a conjugates, wherein the conjugate comprises: at least two analog molecules of the immunogen conjugated to a chemically defined valency platform molecule, wherein said analog molecules bind specifically to surface antibody on B cells to which the T cell-dependent immunogen binds specifically and wherein the analog molecules lack T cell epitopes; wherein the chemically defined valency platform molecule comprises branching groups, and wherein the valency platform molecule contains a specific number of attachment sites whereby the valency of said platform molecule is defined and wherein the molecular weight of the valency platform molecules is substantially homogenous and wherein the valency platform molecules have attachment sites at the same location (species), the composition of the '056 patent (genus) would include the composition of instant application (Species). The issuance of a patent to claims 22, 23, 25, 33, 34 and 35 of instant application would anticipate the composition of the '056 patent because the specific chemically defined valency platform molecule comprises branching groups (species) conjugated to analog molecules in claim 22 of instant application anticipates the composition comprising the generic valency platform molecule conjugated to analog molecules of the '056 patent. Further, the valency platform molecule such as polyethylene glycol in instant claims 31-32 is the same as that of claim 10, 12 and 13 of the '056 patent having branch groups such as D-lysine residues (see col. 6, line 26 of '056 patent).

Claim 16 of '056 patent recites a method of inducing specific B cell anergy to a T cell-dependent immunogen in an individual comprising administering to the individual an effective amount of the pharmaceutical composition comprising the of the conjugate for inducing specific B cell anergy to a T cell dependent immunogen implicated in an antibody-mediated pathology comprising a non-immunogenic valency platform molecule and at least two analog molecules of the immunogen wherein (a) the analog molecules bind specifically to surface antibody on B cells to which the T cell-dependent immunogen binds specifically and (b the conjugate lacks T cell epitopes capable of activity T cells in said individual, and further wherein the analog molecules are selected from the group consisting of peptides, polypeptides, proteins, glycoproteins, lipoproteins, carbohydrates, lipids, and lipopolysaccharides (genus) and a pharmaceutically acceptable carrier. Claim 48 of instant application recites a method of inducing specific B cell anergy to a T cell-dependent immunogen in an individual comprising administering to the individual an effective amount of the composition comprising a plurality of a conjugates, wherein the conjugate comprises: at least two analog molecules of the immunogen conjugated to a chemically defined valency platform molecule, wherein said analog molecules bind specifically to surface antibody on B cells to which the T cell-dependent immunogen binds specifically and wherein the analog molecules lack T cell epitopes; wherein the chemically defined valency platform molecule comprises branching groups, and wherein the valency platform molecule contains a specific number of attachment sites whereby the valency of said platform molecule is defined and wherein the molecular weight of the valency platform molecules is substantially homogenous and wherein the valency platform molecules have attachment sites at the same location (species). The issuance of a patent to claim 48 of instant application (species) would anticipate the method of inducing specific B cell anergy using the genus composition of the '056 patent.

Claim 17 of '056 patent recites a method of treating an individual for an antibody mediated pathology in which undesired antibodies are produced in response to a T cell-dependent immunogen comprising administering to the individual an effective amount of the pharmaceutical composition comprising the of the conjugate for inducing specific B cell anergy to a T cell dependent immunogen implicated in an antibody-mediated pathology comprising a non-immunogenic valency platform molecule and at least two analog molecules of the immunogen wherein (a) the analog molecules bind specifically to surface antibody on B cells to which the T cell-dependent immunogen binds specifically and (b the conjugate lacks T cell epitopes capable

of activity T cells in said individual, and further wherein the analog molecules are selected from the group consisting of peptides, polypeptides, proteins, glycoproteins, lipoproteins, carbohydrates, lipids, and lipopolysaccharides (genus) and a pharmaceutically acceptable carrier. Claim 49 of instant application recites a method of treating an individual for an antibody mediated pathology in which undesired antibodies are produced in response to a T cell-dependent immunogen comprising administering to the individual an effective amount of the comprising a plurality of a conjugates, wherein the conjugate comprises: at least two analog molecules of the immunogen conjugated to a chemically defined valency platform molecule, wherein said analog molecules bind specifically to surface antibody on B cells to which the T cell-dependent immunogen binds specifically and wherein the analog molecules lack T cell epitopes; wherein the chemically defined valency platform molecule comprises branching groups, and wherein the valency platform molecule contains a specific number of attachment sites whereby the valency of said platform molecule is defined and wherein the molecular weight of the valency platform molecules is substantially homogenous and wherein the valency platform molecules have attachment sites at the same location (species). The issuance of a patent to claim 49 of instant application (species) would anticipate the method of treating using the genus composition of the '056 patent.

Claim 18 of the '056 patent recites a method making the composition comprising a therapeutic effective amount of the conjugate for inducing specific B cell anergy to a T cell dependent immunogen implicated in an antibody-mediated pathology comprising a non-immunogenic valency platform molecule and at least two analog molecules of the immunogen wherein (a) the analog molecules bind specifically to surface antibody on B cells to which the T cell-dependent immunogen binds specifically and (b the conjugate lacks T cell epitopes capable of activity T cells in said individual, and further wherein the analog molecules are selected from the group consisting of peptides, polypeptides, proteins, glycoproteins, lipoproteins, carbohydrates, lipids, and lipopolysaccharides (genus). Claim 50 of instant application recites a method making the composition for inducing specific B cell anergy to a T cell dependent immunogen implicated in an antibody-mediated pathology comprising a plurality of a conjugates, wherein the conjugate comprises: at least two analog molecules of the immunogen conjugated to a chemically defined valency platform molecule, wherein said analog molecules bind specifically to surface antibody on B cells to which the T cell-dependent immunogen binds specifically and wherein the analog molecules lack T cell epitopes; wherein the chemically defined valency

platform molecule comprises branching groups, and wherein the valency platform molecule contains a specific number of attachment sites whereby the valency of said platform molecule is defined and wherein the molecular weight of the valency platform molecules is substantially homogenous and wherein the valency platform molecules have attachment sites at the same location (species), the composition of the '056 patent (genus) would include the composition of instant application (Species). Claim 51 of instant application recites a method making the composition of claim 29, the method comprising combining the conjugates with a pharmaceutically acceptable carrier. The issuance of a patent to claims 50-51 of instant application (species) would anticipate the method of making the genus composition of the '056 patent.

16. Claims 22-27, 29-35, 37-38, 42-43, 46, and 48-51 are directed to an invention not patentably distinct from claims 13, 6, 7, 9, 10, 12, 13, 14, 15, 16, 17 and 18 of commonly assigned U.S. Patent No. 6,060,056.

Claim 15 of the '056 patent recites a pharmaceutical composition comprising a therapeutic effective amount of the conjugate for inducing specific B cell anergy to a T cell dependent immunogen implicated in an antibody-mediated pathology comprising a non-immunogenic valency platform molecule and at least two analog molecules of the immunogen wherein (a) the analog molecules bind specifically to surface antibody on B cells to which the T cell-dependent immunogen binds specifically and (b the conjugate lacks T cell epitopes capable of activity T cells in said individual, and further wherein the analog molecules are selected from the group consisting of peptides, polypeptides, proteins, glycoproteins, lipoproteins, carbohydrates, lipids, and lipopolysaccharides (genus).

The pending claim 22 of instant application recites a composition for inducing specific B cell anergy to a T cell dependent immunogen implicated in an antibody-mediated pathology comprising a plurality of a conjugates, wherein the conjugate comprises: at least two analog molecules of the immunogen conjugated to a chemically defined valency platform molecule, wherein said analog molecules bind specifically to surface antibody on B cells to which the T cell-dependent immunogen binds specifically and wherein the analog molecules lack T cell epitopes; wherein the chemically defined valency platform molecule comprises branching groups, and wherein the valency platform molecule contains a specific number of attachment sites whereby the valency of said platform molecule is defined and wherein the molecular weight of

the valency platform molecules is substantially homogenous and wherein the valency platform molecules have attachment sites at the same location (species), the composition of the '056 patent (genus) would include the composition of instant application (Species). The issuance of a patent to claims 22, 23, 25, 33, 34 and 35 of instant application would anticipate the composition of the '056 patent because the specific chemically defined valency platform molecule comprises branching groups (species) conjugated to analog molecules in claim 22 of instant application anticipates the composition comprising the generic valency platform molecule conjugated to analog molecules of the '056 patent. Further, the valency platform molecule such as polyethylene glycol in instant claims 31-32 is the same as that of claim 10, 12 and 13 of the '056 patent having branch groups such as D-lysine residues (see col. 6, line 26 of '056 patent).

Claim 16 of '056 patent recites a method of inducing specific B cell anergy to a T cell-dependent immunogen in an individual comprising administering to the individual an effective amount of the pharmaceutical composition comprising the of the conjugate for inducing specific B cell anergy to a T cell dependent immunogen implicated in an antibody-mediated pathology comprising a non-immunogenic valency platform molecule and at least two analog molecules of the immunogen wherein (a) the analog molecules bind specifically to surface antibody on B cells to which the T cell-dependent immunogen binds specifically and (b the conjugate lacks T cell epitopes capable of activity T cells in said individual, and further wherein the analog molecules are selected from the group consisting of peptides, polypeptides, proteins, glycoproteins, lipoproteins, carbohydrates, lipids, and lipopolysaccharides (genus) and a pharmaceutically acceptable carrier. Claim 48 of instant application recites a method of inducing specific B cell anergy to a T cell-dependent immunogen in an individual comprising administering to the individual an effective amount of the composition comprising a plurality of a conjugates, wherein the conjugate comprises: at least two analog molecules of the immunogen conjugated to a chemically defined valency platform molecule, wherein said analog molecules bind specifically to surface antibody on B cells to which the T cell-dependent immunogen binds specifically and wherein the analog molecules lack T cell epitopes; wherein the chemically defined valency platform molecule comprises branching groups, and wherein the valency platform molecule contains a specific number of attachment sites whereby the valency of said platform molecule is defined and wherein the molecular weight of the valency platform molecules is substantially homogenous and wherein the valency platform molecules have attachment sites at the same location (species). The issuance of a patent to claim 48 of instant application (species) would

anticipate the method of inducing specific B cell anergy using the genus composition of the '056 patent.

Claim 17 of '056 patent recites a method of treating an individual for an antibody mediated pathology in which undesired antibodies are produced in response to a T cell-dependent immunogen comprising administering to the individual an effective amount of the pharmaceutical composition comprising the of the conjugate for inducing specific B cell anergy to a T cell dependent immunogen implicated in an antibody-mediated pathology comprising a non-immunogenic valency platform molecule and at least two analog molecules of the immunogen wherein (a) the analog molecules bind specifically to surface antibody on B cells to which the T cell-dependent immunogen binds specifically and (b the conjugate lacks T cell epitopes capable of activity T cells in said individual, and further wherein the analog molecules are selected from the group consisting of peptides, polypeptides, proteins, glycoproteins, lipoproteins, carbohydrates, lipids, and lipopolysaccharides (genus) and a pharmaceutically acceptable carrier. Claim 49 of instant application recites a method of treating an individual for an antibody mediated pathology in which undesired antibodies are produced in response to a T cell-dependent immunogen comprising administering to the individual an effective amount of the comprising a plurality of a conjugates, wherein the conjugate comprises: at least two analog molecules of the immunogen conjugated to a chemically defined valency platform molecule, wherein said analog molecules bind specifically to surface antibody on B cells to which the T cell-dependent immunogen binds specifically and wherein the analog molecules lack T cell epitopes; wherein the chemically defined valency platform molecule comprises branching groups, and wherein the valency platform molecule contains a specific number of attachment sites whereby the valency of said platform molecule is defined and wherein the molecular weight of the valency platform molecules is substantially homogenous and wherein the valency platform molecules have attachment sites at the same location (species). The issuance of a patent to claim 49 of instant application (species) would anticipate the method of treating using the genus composition of the '056 patent.

Claim 18 of the '056 patent recites a method making the composition comprising a therapeutic effective amount of the conjugate for inducing specific B cell anergy to a T cell dependent immunogen implicated in an antibody-mediated pathology comprising a non-immunogenic valency platform molecule and at least two analog molecules of the immunogen wherein (a) the analog molecules bind specifically to surface antibody on B cells to which the T

cell-dependent immunogen binds specifically and (b the conjugate lacks T cell epitopes capable of activity T cells in said individual, and further wherein the analog molecules are selected from the group consisting of peptides, polypeptides, proteins, glycoproteins, lipoproteins, carbohydrates, lipids, and lipopolysaccharides (genus). Claim 50 of instant application recites a method making the composition for inducing specific B cell anergy to a T cell dependent immunogen implicated in an antibody-mediated pathology comprising a plurality of a conjugates, wherein the conjugate comprises: at least two analog molecules of the immunogen conjugated to a chemically defined valency platform molecule, wherein said analog molecules bind specifically to surface antibody on B cells to which the T cell-dependent immunogen binds specifically and wherein the analog molecules lack T cell epitopes; wherein the chemically defined valency platform molecule comprises branching groups, and wherein the valency platform molecule contains a specific number of attachment sites whereby the valency of said platform molecule is defined and wherein the molecular weight of the valency platform molecules is substantially homogenous and wherein the valency platform molecules have attachment sites at the same location (species), the composition of the '056 patent (genus) would include the composition of instant application (Species). Claim 51 of instant application recites a method making the composition of claim 29, the method comprising combining the conjugates with a pharmaceutically acceptable carrier. The issuance of a patent to claims 50-51 of instant application (species) would anticipate the method of making the genus composition of the '056 patent.

17. The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP § 2302). Commonly assigned patent, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee is required under 35 U.S.C. 103(c) and 37 CFR 1.78(c) to either show that the conflicting inventions were commonly owned at the time the invention in this application was made or to name the prior inventor of the conflicting subject matter. Failure to comply with this requirement will result in a holding of abandonment of the application.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications filed on or after November 29, 1999.

18. No claim is allowed.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong Huynh "NEON" whose telephone number is (571) 272-0846. The examiner can normally be reached Monday through Friday from 9:00 am to 5:30 p.m. A message may be left on the examiner's voice mail service. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Chan can be reached on (571) 272-0841. The IFW official Fax number is (703) 872-9306.

20. Any information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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